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November 20, 2006

Ms. Tam Doduc, Board Chair
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814

Attention Song Her, Clerk to the Board

Dear Ms. Duduc:



TECHNICAL COMMENTS ON THE CEQA INFORMATIONAL DOCUMENT FOR DEVELOPMENT OF SEDIMENT QUALITY OBJECTIVES FOR ENCLOSED BAYS AND ESTUARIES

The City of Los Angeles, Bureau of Sanitation (Bureau) appreciates the opportunity to provide technical comments on the State Water Resources Control Board's (SWRCB) recently released California Environmental Quality Act (CEQA) Informational Document for Development of Sediment Quality Objectives (SQO) for Enclosed Bays and Estuaries. The Bureau supports the science-based approach being used to develop these objectives and continues to advocate that all regulations be based on the best available scientific knowledge. The Bureau understands that the effort undertaken to collect this data and produce these indices is a time and labor intensive process and supports the SWRCB's efforts to collect data and in developing a methodology that will produce robust tools.

The Bureau provides the following technical comments:

- 1 Support the use of a multiple lines of evidence (MLOE) triad approach to assessing sediment conditions. Three lines of evidence are required by the integrated scientific method developed by the SWRCB and the Southern California Coastal Water Research Project to conduct these assessments. One or two lines of evidence will not work in this scientific method. The Bureau agrees with the SQO Scientific Steering Committee that both scientific understanding and empirical evidence demonstrate that a single line of evidence (e.g., sediment chemistry, or sediment toxicity, or benthic infaunal community) is unreliable and potentially misleading; and therefore in our review, not usable for the SQO assessments; and



2. Assert that a "line of evidence" is not merely the raw data alone (e.g., chemistry test results) but includes the derived metrics, indices, and other supporting information that provide the context for interpreting the monitoring data and applying this information in the context of a MLOE approach to assess sediment quality; and
3. Support the approach that the sediment quality objectives will not operate independently, but will complement current water and sediment quality regulation that include: dredging regulations, the SWRCB CWA 303(d) Listing Policy, NPDES permitting, and TMDLs. The SWRCB and Regional Water Quality Control Boards should consider carefully how the SQO will be integrated with these programs. In particular, in prescribing actions that may be required under these water quality regulatory programs when a waterbody or a portion of a waterbody does not meet the SQO; and
4. Advocate the use of Regional Monitoring coalitions to collect data in support of developing SQO, assessing SQO environmental conditions, and refining the SQO as more information becomes available.

The Bureau presents these issues with the intention that these may assist in refining the SWRCB's method in developing SQO. Additional technical issues are included in the attached Appendix A.

The Bureau appreciates and thanks the SWRCB and its staff for the effort they have put forth in preparing both SQO indices and the plan. It is our intention that the attached comments will assist the SWRCB to further refine the SQO regulation to the benefit of all of the State's inhabitants.

If you should have any additional questions or comments, please contact H.R. (Omar) Moghaddam or Jim Marchese of my staff at (310) 648-5423 or (310) 648-5421.

Sincerely,



RITA L. ROBINSON, Director
Bureau of Sanitation

RLR:HRM:GD:JM

Enclosures

cc: Celeste Cantu, State Water Resources Control Board, Executive Officer
Jonathan Bishop, Los Angeles Regional Water Quality Control Board
Nancy Sutley, Mayor's Office
Rafael Prieto, Chief Legislative Analyst Office
Cynthia Ruiz, President Board of Public Works
Enrique Zaldivar, Bureau of Sanitation/EXEC
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Shahram Kharaghani, Bureau of Sanitation/WPD
H.R. (Omar) Moghaddam, Bureau of Sanitation/RAD
Paul Johanson, Port of Los Angeles
Fazi Mofedi, Department of Water and Power
RAD Central File/Water Quality Section

The Bureau requests revision or clarification on the following issues:

COMMENT #	DOCUMENT REFERENCE PAGE #, SECTION # PARAGRAPH #	Issue	Comments
1		Scientific Advancement	Support the SWRCB in continuing to develop the integrated MLOE methodology with the capability to update this methodology as more robust analytical methods become available.
2		Monitoring Costs	Does the SWRCB have any data on the projected costs associated with sediment quality monitoring or regional monitoring, the costs of assessments required to determine impairment, and the cost of stressor identification if a water body is determined to be impaired under this plan? If yes, please present this information in the Plan.
3		Permit Language	How will the SQO be translated into permit language? Please include in this Plan proposed language for inclusion in permits.
4		Exceedance and Listings defined	Although there has been good progress on the scientific method for developing SQO, there is much work remaining in how an exceedance will be derived or how to determine impairment using this tool. These sections are critically important for the adoption and the successful implementation of the SQO.
5		CEQA Informational Document is incomplete.	The Bureau understands that this CEQA informational document is a preliminary proposal and affirms that this plan requires a lot more work to complete the development of the SQO. The timeline proposed for completion and adoption seems too ambitious.
6		Progress on the Assessment Method and Tools	The SWRCB should be flexible on the rollout dates so it can continue to collect additional data and further develop incomplete tools.
7		Implementation testing period	The SWRCB should provide for an implementation review period and safe- harbor language to test how well the integrated methodology and implementation plan is working and to shelter permittees from third party lawsuits as the analytical tools are evaluated.

City of Los Angeles Bureau of Sanitation

Appendix A - Technical Comments on CEQA Informational Document on Development of SQO for enclosed bays and estuaries.

November 20, 2006

8	Page 6, Section 2.3 Paragraph 1	Alternative 2: Surficial sediment only	Surficial sediment - within biological active layer. Suggest that the definition include enough detail to provide guidance for developing sampling protocols. Also request specific language that clearly defines applicability (or lack thereof) of SQO to intertidal zones. It is our understanding that SQO would not be applicable to the intertidal zones.
9	Page 9, Section 2.5 3rd Paragraph	Alternative 3 is too ambiguous and seems circular	Please provide specific language that clearly defines applicability (or lack thereof) to dredging. For example "SQOs would be applicable as a screening tool (e.g., Tier 1 or 2) under the existing Federal Framework for the assessment of dredged materials. The federal program under the MPRSA and the CWA addresses the requirements specified under section 13396."
10	Page 13, Section 2.7, Paragraph 1	Alternative 3 identifies three sediment-related exposure receptor relationships yet only two are numbered.	Modify and number statements to provide agreement.
11	Page 13, Section 2.8, 4th sentence	Word deletion	"...pristine community that could have existed prior to of the industrial age." Delete "of".
12	Page 16, Section 2.10, 1st Paragraph, last sentence	Reference	(Chapman et al, 2001...) According to the References section, this should either read "Chapman and Wang 2001" or "Chapman et al 1997".
13	Page 18, Section 2.10 Paragraph 1	Alternative 3: Base policy on application of MLOE	How effective will MLOE be since there is no precedent for translation of MLOE into criteria, standards or objectives? How will accuracy and effectiveness be measured?
14	Page 31, Section 2.19, Paragraph 5	Combination of Sediment and Toxicity	Section title should be "Combination of Sediment Chemistry and Toxicity".

15	Page 32, Section 2.19, Alt. 3	Interim Tools	Support the use of a multiple lines of evidence (MLOE) triad approach to assess sediment conditions. Three lines of evidence are required by the integrated scientific method developed by the SWRCB and the Southern California Coastal Water Research Project to conduct these assessments. One or two lines of evidence will not work in this scientific method. We agree with the SQO Scientific Steering Committee that both scientific understanding and empirical evidence demonstrate that a single line of evidence (e.g., sediment chemistry, or sediment toxicity, or benthic infaunal community) is unreliable and potentially misleading; and therefore in our review not usable for the SQO assessments.
16	Page 33, Section 2.22, Paragraph 1	Alternative 2: Magnitude and extent would be used to make a determination (exceedance)	Suggest adding frequency and repeatability to define and verify exceedance.
17	Page 34, Section 2.24 Alt. 3	Alternative 3: Propose that narrative SQOs be applied in NPDES permit as receiving water limits.	It is premature to apply narrative SQOs in NPDES permits as a receiving water limit before the relationship between sediment toxicity & water chemistry is known, and the impairment of beneficial uses of waterbodies is fully understood.
18	Page 37, Section 3. I. C.	Review of Plan	"This Plan shall be reviewed every three years...." Request a description of the minimum set of elements of the regulation or the methodology to be revisited regularly in addition to the standard triennial review activities.

19	Page 38, Section 3. II. D.	Section seems to contradict itself	<p>Section D1 clearly states that the plan is not applicable to dredged material being evaluated under the federal program or to the management of active dredged material disposal sites. However section D2 implies that the plan is applicable.</p> <p>Suggest revising language to "Sediment quality objectives developed under this plan may be used in dredged material assessments as a screening tool in a Tier I or Tier II assessment within the existing Federal Framework for dredged material management suitability determinations. The Federal Framework has been designed and includes appropriate procedures to ensure that:</p> <ol style="list-style-type: none"> 1. The polluted sediment is removed in a manner that prevents or minimizes water quality degradation; 2. The polluted sediment is not deposited in a location that may cause significant adverse effects to aquatic life, fish, shellfish, or wildlife or may harm the beneficial uses of the receiving waters, or does not create maximum benefit to the people of the State; 3. The activity will not cause significant adverse impacts upon a federal sanctuary, recreational area, or other waters of significant national importance; <p>In accordance with requirements of section 13396 of the State Water code."</p>
20	Page 39 Section 3. II. E.	Discharges	Please define 'Direct discharge' to address issues surrounding the tributary rule and in the context of the MS4 and TMDL regulatory programs.
21	Page 39 Section 3. II. F.	Add a Section F. Navigation	Request that the SWRCB state the applicability (or lack thereof) of SQO assessments to dredging for the purpose of maintaining navigable channels.
22	Page 41, Section 3. IV. A. & B.	Plan vs. Policy	Section 3 identifies this document as a draft plan. These sections reference this plan as the policy. Please clarify.
23	Page 42, Section 3. V. D. 2. a and b	Field Procedures	Clarify why the disparity in mesh size between SF Bay and elsewhere. Will samples be screened through a 1.0 mm over a 0.5 mm screen resulting in split samples to allow comparison with samples from locations other than SF Bay?

24	Page 43, Section 3. V. F. 1. 1st Paragraph	Sediment Toxicity Test Methods	Although exposure type, duration, and endpoint have been listed, no protocol for these tests has been mentioned. Also, how will results from multiple tests be assessed if they differ in determination of toxicity?
25	Page 43, Section 3. V. F. 2. 2nd Paragraph	Sediment Toxicity Test Methods	Suggest adding the option of substituting <i>Haliotis rufescens</i> for <i>Mytilus galloprovincialis</i> as both are mollusks, development tests, and can be used for sediment-water interface. Also, <i>Haliotis rufescens</i> can be easily obtained from suppliers, can be held in the lab, is very sensitive, and has low test variability.
26	Page 43, Section 3. V. F. 3. 1st Paragraph	Sediment Toxicity Test Assessment	Nontoxic: Clarify "not substantially different".
27	Page 43, Section 3. V. F. 3. 2nd Paragraph	Sediment Toxicity Test Assessment	Low Toxicity: Clarify. Suggest - A biological response to a compound that is not greater than the test variability that has historically been considered non-toxic.
28	Page 44, Section 3 V.F.3, Table 3.4	No definition for Nontoxic. Thresholds specified imply a high level of precision that does not seem reasonable given the normal variability of these tests. % unclear for growth and development endpoints.	Percentages provided for Low effect are the same as those given for acceptable control survival in the specified testing guidance. Therefore, in accordance with the descriptions provided on p 43 they should be given as a intervals for the Low Effect, and Moderate Effect categories (e.g., for <i>E. estuarius</i> Low Effect would be defined as <90% but ≥82%. Similarly non-toxic effect category for <i>E. estuarius</i> should be defined as ≥90% and the high effects category should be defined as ≤63%. It is not clear what the percentiles mean for growth and development endpoints (<i>Neanthes</i> and <i>Mytilus</i> , respectively). The percentiles given under both Moderate and High effects imply a level of precision that does not seem reasonable (82%, 63%, etc) given the inherent variability of these tests. It would seem that round numbers would be more reflective of an appropriate level of precision (e.g., 80% as opposed to 82%).
29	Page 44, Section 3 V.F.3, Table 3.4	Terms on Table 3.4 did not match with definitions on page 43.	Table 3.4 did not have " <i>nontoxic</i> , low <i>toxicity</i> , moderate <i>toxicity</i> and high <i>toxicity</i> " terms that were defined on Page 43.

30	Page 44, Section 3 V.G.2, 1st sentence	Benthic tools	"The benthic data shall be assessed using four of the following methods:" There are only four methods described (a-d). Please clarify and correct if this needs to be replaced with "all", "two", "three". In an effort to not suppress scientific progress, this should also have a fifth option that could be stated as: "e. Or some other developed or not yet developed index that, based on evidence and SWRB approval, is comparable or superior in performance to a-d".
31	Page 44, Section 3 V.G.2.	Benthic Tools	Evaluate the benthic response index e.g. phylodiversity. which may be utilized to correlate a larger suite of indices with chemical values and composites such as CCS, Pmax, or others in development such as the mean weighted benthic impact score (BICS) which should provide additional metrics to evaluate impacts.
32	Page 45, Section 3 V.G.5.	Less then four indexes	Will it be possible to calculate all benthic indices at every site and if not what will be the procedure?
33	Page 45, Section 3 V.H.1.	Analytes analyzed	Last line, should remove the word "greater."
34	Page 45, Section 3 V.H	Section indicates Pmax will be used to derive chemical indices.	Although the Pmax for a specific chemical considers the presence of other chemicals in its derivation, when applied in the assessment of a sediment sample only the constituent with the highest Pmax is used to determine the likelihood of toxicity. Such an approach seems to exclude consideration of the number and magnitude of exceedances when multiple contaminants are present in a sample at elevated concentrations. Under the Pmax approach a sample where only one constituent is high could be equally weighted as one where multiple constituents are high. An approach where all constituents are evaluated in aggregate would be preferable and improve discrimination of sites for chemical contamination.
35	Page 45, Section 3 V.H.1,	Inclusion of additional analytes can not be used in the exposure assessment...	Any analytes presented in sediment (e.g. ammonia and sulfide arising from decay), which are not on Appendix A may affect assessing exposure to toxic pollutants in sediment. How will it be taken into account of exposure assessment?
36	Page 49, Section 3 V.I.3., Table 3.9	Table 3.9 Station Assessment Matrix	The Table 3.9 should contain inconclusive as noted in this section.

37	Page 49, Section 3. V. J.	Two lines of evidence results in higher degree of uncertainty and the current version of table does not reflect this.	Should have larger number of inconclusives reflective of the increased level of uncertainty at the margins of response, necessitating additional study to reach a determination.
38	Page 49, Section 3. V. J.	Two lines of evidence are not developed under this scientific procedure.	Three lines of evidence are required by the integrated scientific method developed by the SWRCB and the Southern California Coastal Water Research Project to conduct these assessments. One or two lines of evidence will not work in this scientific method.
39	Page 52, Section 3. VII. A.	Remove the term Reasonable potential	Remove this term from this section as this is used in the context of other regulatory programs as a specific analytical procedure.
40	Page 52, Section 3. VII. B.2.a.	Remove the term Reasonable potential	Remove this term from this section as this is used in the context of other regulatory programs as a specific analytical procedure.
41	Page 52, Section 3. VII. B.2.b.	Monitoring- Remove both and replace with the word OR	Monitoring may be performed by individually Permittees to assess compliance with receiving monitoring limits, OR participate...
42	Page 52, Section 3. VII. A. & page 53, Section 3. VII. B. 6.	Monitoring schedule and frequency	Request that the Plan be consistent in monitoring schedule and frequency and suggest once every 5 years.
43	Page 52, Section 3. VII. B. 2. c.	Add subitem c. to include the utilization of Stratified Random design.	Recommend using a Stratified Random network for monitoring permitted discharges.
44	Page 55, Section VII. C. 2. c.	Toxicity Identification Evaluation	Reference an EPA-accepted Sediment Toxicity Identification Evaluation Methodology.
45	Page 55, Section 3. VII. D.	If the Regional Board has developed a TMDL ... no further action is required..."	Once finalized and adopted, would the sediment quality objectives be automatically applied to previously adopted TMDLS for sediment in enclosed bays and estuaries or would the TMDL be reopened? Would sediment in rivers and creeks as tributaries be also evaluated based on sediment quality objectives? As we understand this would not be the case and therefore should be specified in this Plan and in Guidance documents.

46	Page 56, Appendix A	Emerging contaminants	SWRCB may consider identification and development of LOEs for emerging contaminants (e.g., PBDEs, pyrethroids, etc.).
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